






Work Order ID 61046

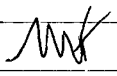


August 4, 2010 2:33:27 PM



Page 1

Item ID: D2842-042 Accept  Setup Start 
Revision ID: Stop 
Item Name: Step Assembly RH, 206 Float
Start Date: 8/04/10 Start Qty: 2.00  Cust Item ID:
Required Date: 8/16/10 Req'd Qty: 2.00  Customer:

Reference:

Approvals: Process Plan:  Date: 8-8-10 Tooling: Date: Run Start 
QC: Date: SPC (Y/N): Date: Stop 

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D2842	Rev B

100	Large Fab	0.00				2			
Large Fab	Memo	0.00							
Large Fab	1-Cut D2842-1 using D2622 extrusion as per Dwg D2842-2-Drill D2842-1 using Jig DT8272 as per Dwg D2842-3-Deburr and bevel ends for welding								

110	Large Fab	0.00				2			
Large Fab	Memo	0.00							
Large Fab	1-Weld one end cap and (2) lugs as per Dwg D2842-A/R AL Rod Batch: 114377 112860 2-Grind end cap weld flush								

120	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
QC	Memo	0.00							
Quality Control									

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 61046

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Item ID: D2842-042

Accept



Setup Start



Revision ID:

Stop



Item Name: Step Assembly RH, 206 Float

Start Date: 8/04/10 Start Qty: 2.00



Cust Item ID:

Required Date: 8/16/10 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

130

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

8/10/06/24

Quality Control

42
(24)

140

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

Hand Finishing

2 10/08/24

150

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

=> 10/08/25

Quality Control

2 d

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 61046

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Page 3

Item ID:	D2842-042	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Step Assembly RH, 206 Float					
Start Date:	8/04/10	Start Qty:	2.00		Cust Item ID:	
Required Date:	8/16/10	Req'd Qty:	2.00		Customer:	
Reference:						

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	
	QC:	Date:	SPC (Y/N):	Date:		Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 	Large Fab	0.00							
Large Fab	Memo	0.00							
Large Fab	1-Remove alodine prior to welding. <input type="checkbox"/> Weld end cap as per Dwg D2842. <input type="checkbox"/> A/R AL Rod Batch: <u>M112860</u> <input type="checkbox"/> 2-Grind end cap weld flush.								
170 	QC9- Inspect visual per QS1004- Fusion Welds	0.00							
QC	Memo	0.00							
Quality Control									
180 	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									

Handwritten: 110.08.25 2 *[Signature]*

Handwritten: 2 1008.25

Handwritten: 8/10/08/25

Handwritten: (+2) *[Signature]*

Handwritten: PTO

Dart Aerospace Ltd

W/O: 61046		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
10/08/26	10.1	Touch-up Alodine on cap	JH	10/08/26	x2		

Part No: D2842-042 PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 61046

August 4, 2010 2:33:27 PM



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Item ID: D2842-042

Accept



Setup Start



Revision ID:

Stop



Item Name: Step Assembly RH, 206 Float

Start Date: 8/04/10 Start Qty: 2.00



Cust Item ID:

Required Date: 8/16/10 Req'd Qty: 2.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

205

0.00



SprayPaint

Memo

0.00

Spray Painting

Spray paint Delfleet Blue
Primer B 110191
Delfleet Blue B 113171
Clear delfleet B 113314 □□

25 10-09-03 (x2)

206

QC14- Inspect Spray Paint

0.00



QC

Memo

0.00

Quality Control

ML 10 09 07 (2)

210

HandFinishing

0.00



HandFinish

Memo

0.00

Hand Finishing

✓ Install inserts as per Dwg D2842 □ 2-Wing Walk as per Dwg D2842 and QSI
005 4.1 □ Batch: 1115028

=) ML 10109108

X2RH d

WHITE START 9:25
M115291 OVER T. 3200
FINISH 9:55

16R 10-10-5

2RA.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2842-042 PAR #: _____ Fault Category: Prod. NCR: Yes No DQA: / Date: 10/10/22
 Resolution: rework Disposition: rework QA: N/C Closed: / Date: 10/10/22

NCR: <u>61046</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>10/09/13</u>	<u>205</u>	<u>Wrong steps - P/N should have been D2724-042 issued wrong P/N - LL</u>	<u>/</u>	<u>strip and repaint white per Dist 005</u>	<u>10/10/06</u> <u>x2</u>	<u>S</u>	<u>/</u>	<u>/</u>
			<u>/</u>	<u>QC3 ml 10-10-05</u>	<u>10/10/06</u> <u>x2</u>	<u>S</u>	<u>/</u>	<u>/</u>
			<u>/</u>	<u>rework per Dist 005 per drawing M115028</u>	<u>10/10/06</u> <u>x2</u>	<u>S</u>	<u>/</u>	<u>/</u>
				<u>QC3 ml 10/10/06 x2</u>		<u>S</u>	<u>/</u>	<u>/</u>

DARTDart Aerospace Ltd.
1270 ABERDEEN ST.
HAWKESBURY, ON, CANADA K6A 1K7

TC APPROVAL # 09-89

TEL: 1-613-632-5200

P/N	D206-628-022BL	CHG	CHG003
DESC.	Heli-Access-StepBue R	STC	SH98-14
LOT	B61056	STC	SA00500SE
MODEL	206L/L1/L3/L4	STC	

MADE IN CANADA

D2729-1

DARTDart Aerospace Ltd.
1270 ABERDEEN ST.
HAWKESBURY, ON, CANADA K6A 1K7

TC APPROVAL # 09-89

TEL: 1-613-632-5200

P/N	D206-628-022BL	CHG	CHG003
DESC.	Heli-Access-StepBlue R	STC	SH98-14
LOT	B61056	STC	SA00500SE
MODEL	206L/L1/L3/L4	STC	

MADE IN CANADA

D2729-1

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 1

Work Order ID: 61046

Parent Item: D2842-042

Parent Item Name: Step Assembly RH, 206 Float

Start Date: 8/04/10

Required Date: 8/16/10

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:D As Per Ecn 766 06-01-06 JLM□□

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

AN960C10L	NAS1149C0332 R	Purchased	No			100	Each	29.0000	3	6			
-----------	-------------------	-----------	----	--	--	-----	------	---------	---	---	--	--	--



washer

1115000



x6 10/09/08

Location	Loc Qty	Loc Code
----------	---------	----------

ST245	29	
-------	----	--

107534	29	
--------	----	--

D2622-120C		Manufactured	No			110	Each	97.4200	1	2			
------------	--	--------------	----	--	--	-----	------	---------	---	---	--	--	--



Step Extrusion



10.08.23

Location	Loc Qty	Loc Code
----------	---------	----------

WA	97.42	
----	-------	--

55214	3.42	
-------	------	--

58544	94	
-------	----	--

D2734		Manufactured	No			110	Each	7.0000	2	4			
-------	--	--------------	----	--	--	-----	------	--------	---	---	--	--	--



Step End Plate



10.08.23

Location	Loc Qty	Loc Code
----------	---------	----------

WA	7	
----	---	--

55014	7	
-------	---	--

D3459-1		Manufactured	No			110	Each	32.0000	2	4			
---------	--	--------------	----	--	--	-----	------	---------	---	---	--	--	--



Float Step Mounting Plate



10.08.23

Location	Loc Qty	Loc Code
----------	---------	----------

WA	32	
----	----	--

48138	10	
-------	----	--

51583	22	
-------	----	--

4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

August 4, 2010 2:33:32 PM

Work Order ID: 61046



Parent Item: D2842-042



Parent Item Name: Step Assembly RH, 206 Float

Start Date: 8/04/10

Required Date: 8/16/10

Start Qty: 2.00

Required Qty: 2.00

D3459-3 Manufactured No

210 Each

18.0000

2

4



Float Step Mounting Plate



8/10.08.23

Location

Loc Qty

Loc Code

WA

361214

18

46988

1

51630

17

4

MS27039C1-07 Purchased No

210 Each

21.0000

3

6



screw



JH 10/09/08

Location

Loc Qty

Loc Code

ST293

21

111424

21

M 115460

X6

NAS1329C3KB130 Purchased No

210 Each

84.0000

3

6



insert



JH 10/09/08

Location

Loc Qty

Loc Code

ST276

84

111981

84

X6

NAS1515H3L Purchased No

210 Each

434.0000

3

6



WASHER



JH 10/09/08

Location

Loc Qty

Loc Code

FG

40

102472

40

ST277

394

111819

148

113362

246

X6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

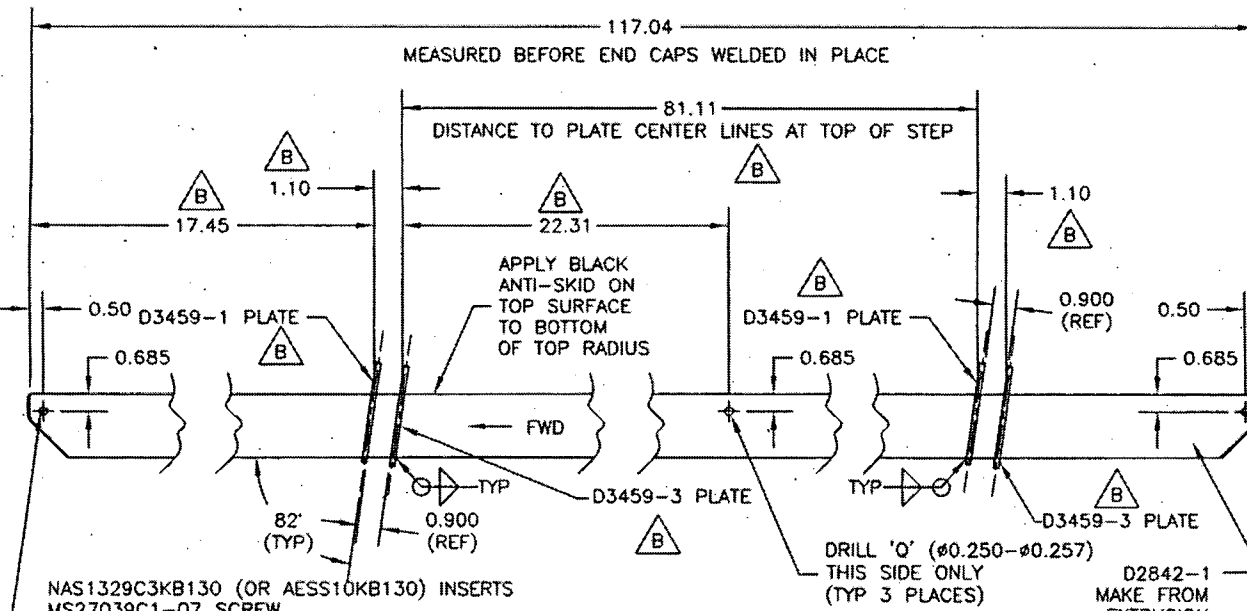

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART

PL 10-8-64

—REFER TO STEP
END DETAIL



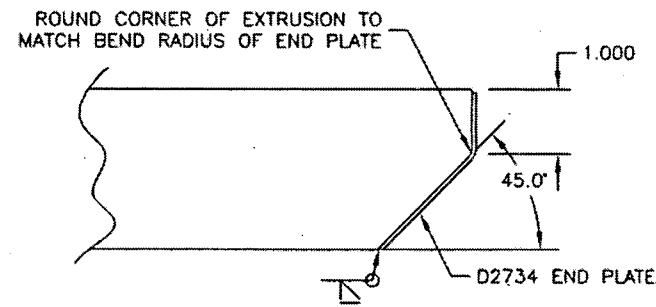
NAS1329C3KB130 (OR AESS10KB130) INSERTS
MS27039C1-07 SCREW
NAS1515H3L WASHER
AN960C10L WASHER
(TYP 3 PLACES) D2842-041 L

D2842-041 LH STEP ASSEMBLY (SHOWN)
D2842-042 RH STEP ASSEMBLY (OPPOSITE)

NOTE: ALL WELDS SHALL
BE 100% VISUALLY
INSPECTED BY A QUALIFIED
INSPECTOR PER DART
QSI 004

02842-041/-042 FLOAT STEP ASSEMBLY PARTS LIST

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D2842-041	LH STEP ASSEMBLY
	X	D2842-042	RH STEP ASSEMBLY
1	1	D2622-118	EXTRUSION
2	2	D2734	END PLATE
2	2	D3459-1	PLATE
2	2	D3459-3	PLATE
3	3	NAS1329C3KB130 (OR AESS10KB130)	INSERT
3	3	MS27039C1-07	SCREW
3	3	NAS1515H3L	WASHER
3	3	AN950C 10L	WASHER





TYPICAL STEP END DETAIL
NOT TO SCALE

D2842-041/-042 FLOAT STEP ASSEMBLY

- 1) MAKE FROM EXTRUSION D2622
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
APPLY BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) ALL TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

RELEASED
8-11-14

DESIGN	KE	DRAWN BY	PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA		REV. B
CHECKED		APPROVED		DRAWING NO.	D2842	SHEET 1 OF 1
DATE	05.09.23			TITLE	206L/407 FLOAT STEP ASSEMBLY	
A	98.10.13			NEW ISSUE		
B	05.09.23			RE-DESIGN, ADD	D3459-1/-3	
				SCALE	NTS	

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Work Order Summary

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Criteria : Work Order ID: 61046 Item ID: D2842-042 Product Family LARGE FAB
 Work Order Start Dates 8/04/10 to 8/04/10 11:59:59 PM Work Order Required Dates 8/16/10 to 8/16/10
 11:59:59 PM

All References

Work Order Status Costed

Work Order ID	61046	Required Qty	2.0000	Status Code	Costed
Item ID	D2842-042	Accepted Qty	2.0000	Scrap Qty	0.0000
Item Name	Step Assembly RH, 206 Float				
Current Acct Value	\$266.742	Sales Order ID			
Start Date	8/04/10	Required Date	8/16/10	Completed Date	9/08/10 11:45:03 AM

Standard	** Actual **		** Acct. Value **	** Variance **	** Variance % **
Direct Costs	Total	Each	Each	Each	Each
Material	\$84.925	\$42.462	\$39.935	-\$2.528	-6.33%
Labor	\$172.872	\$86.436	\$92.622	\$6.186	6.68%
Outplant	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
Variable Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
Fixed Burden	\$275.688	\$137.844	\$191.476	\$53.632	28.01%
Material Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
** Total **	\$533.485	\$266.742	\$324.032	\$57.290	

Item ID/ Item Name	Required Qty	Issue Code	Issue Date	Issued Qty	Cost Amount
D2622-120C	2.0000				
Step Extrusion			8/25/10	2.0000	\$51.151
D2734	4.0000				
Step End Plate			8/25/10	4.0000	\$23.720
D3459-1	4.0000				
Float Step Mounting Plate			8/25/10	4.0000	\$23.517
D3459-3	4.0000				
Float Step Mounting Plate			8/25/10	4.0000	\$23.425
MS27039C1-07	6.0000				
screw			9/08/10	6.0000	\$4.454
NAS1149C0332R	6.0000				
Washer			9/08/10	6.0000	\$0.184
NAS1329C3KB130	6.0000				
insert			9/08/10	6.0000	\$21.000
NAS1515H3L	6.0000				
WASHER			9/08/10	6.0000	\$0.836
Total Matl Amts:					\$148.287

Work Center HandFinish

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
EWER01		8/24/10										
140			0.00	0.00	1.06	0.53	2.00	\$0.000	\$8.796	\$9.587	\$0.000	\$18.38
LAUG01		9/08/10										

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Work Order Summary

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210			0.00	0.00	3.37	1.69	2.00	\$0.000	\$28.098	\$30.626	\$0.000	\$58.72
Total:			0.00	0.00	4.43	2.21	4.00	\$0.000	\$36.894	\$40.214	\$0.000	\$77.10

Work Center Large Fab

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
EWER01												
	8/20/10											
100			0.00	0.00	2.57	0.86	3.00	\$0.000	\$17.364	\$26.045	\$0.000	\$43.40
	8/23/10											
110			0.00	0.00	2.02	2.02	1.00	\$0.000	\$41.004	\$61.506	\$0.000	\$102.51
110			0.00	0.00	1.12	1.12	1.00	\$0.000	\$22.758	\$34.137	\$0.000	\$56.89
	8/25/10											
160			0.00	0.00	3.18	1.06	3.00	\$0.000	\$21.498	\$32.247	\$0.000	\$53.74
Total:			0.00	0.00	8.90	5.07	8.00	\$0.000	\$102.624	\$153.935	\$0.000	\$256.55

Work Center SprayPaint

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
titl01												
	9/03/10											
205			0.00	0.00	3.41	0.85	4.00	\$0.000	\$15.111	\$36.420	\$0.000	\$51.53
Total:			0.00	0.00	3.41	0.85	4.00	\$0.000	\$15.111	\$36.420	\$0.000	\$51.53